

AMENDMENT TO THE CLAIMS

1. (Currently amended) A system comprising:

a mechanical arm;
an attachment member tiltably mounted on the mechanical arm about a pivot joint,
wherein the attachment member has a range of tilt about the pivot joint bounded by an extreme forward orientation and an extreme rearward orientation;
an actuator operably connected to the attachment member for powering the attachment member to tilt about the pivot joint;
a power system operably connected to the actuator;
an electronic control operatively connected to the power system, and comprising an automatic vibration mechanism for causing the attachment member to vibrate automatically in response to an activation signal; and
an operator interface in operable communication with the electronic control; [[and]]
wherein the system comprises a default state, and an activation state for causing the activation signal; and
wherein the system has a predetermined segment of the range of tilt of the attachment member that is comprised in the activation state, and a remainder of the range of tilt comprised in the default state, wherein the attachment member being selectably oriented within the predetermined segment of the range of tilt comprised in the activation state is a necessary condition for causing the activation signal.

2. (Canceled)

3. (Currently amended) The system of claim [[2]]_1, wherein the system also has a predetermined length of time, comprised in the activation state, for the attachment member to be oriented within the predetermined segment of the range of tilt, wherein ~~also comprises the attachment member being oriented within the predetermined segment of the range of tilt for~~

[[a]] the predetermined length of time is a further necessary condition for causing the activation signal.

4. (Currently amended) The system of claim [[2]] 1, wherein the predetermined segment of the range of tilt includes the extreme forward orientation.
5. (Currently amended) The system of claim 1, wherein the attachment member has a range of lift above a projected ground surface bounded by a minimum lift and a maximum lift, and wherein the system also has a predetermined segment of the range of lift of the attachment member that is comprised in the activation state, wherein comprises the attachment member being positioned within [[a]] the predetermined segment of the range of lift is a further necessary condition for causing the activation signal.
6. (Currently amended) The system of claim 5, wherein the system also has a predetermined length of time, comprised in the activation state, for the attachment member to be positioned within the predetermined segment of the range of lift, wherein also comprises the attachment member being positioned within the predetermined segment of the range of lift for [[a]] the predetermined length of time is a further necessary condition for causing the activation signal.
7. (Original) The system of claim 5, wherein the predetermined segment of the range of lift includes the maximum lift.
8. (Currently amended) A system comprising:
 - a mechanical arm;
 - an attachment member tiltably mounted on the mechanical arm about a pivot joint;
 - an actuator operably connected to the attachment member for powering the attachment member to tilt about the pivot joint;
 - a power system operably connected to the actuator;

an electronic control operatively connected to the power system, and comprising an automatic vibration mechanism for causing the attachment member to vibrate automatically in response to an activation signal; and
an operator interface in operable communication with the electronic control; and
wherein the system comprises a default state, and an activation state for causing the activation signal;

wherein the attachment member has a range of lift above a projected ground surface bounded by a minimum lift and a maximum lift, and wherein the activation state comprises the attachment member being positioned within a predetermined segment of the range of lift;

~~The system of claim 5,~~ wherein the attachment member ~~[[also]]~~ has a range of lift above a projected ground surface bounded by a minimum lift and a maximum lift, and a range of tilt about the pivot joint bounded by an extreme forward orientation and an extreme rearward orientation, and wherein the activation state comprises the attachment member being both positioned within a predetermined segment of the range of lift, and oriented within a predetermined segment of the range of tilt.

9. (Original) The system of claim 8, wherein the activation state also comprises the attachment member being positioned within the predetermined segment of the range of lift and oriented within the predetermined segment of the range of tilt, for a predetermined length of time.
10. (Currently amended) The system of claim 1, wherein the activation state comprises the attachment member undergoing a minimum load, and wherein the attachment member undergoing the minimum load is a further necessary condition for causing the activation signal.
11. (Original) The system of claim ~~[[10]]~~ 1, wherein the activation state comprises the attachment member undergoing a minimum load, and wherein the minimum load for the activation state is detected by a mechanical strain gauge.

12. (Currently amended) A system comprising:

a mechanical arm;

an attachment member tiltably mounted on the mechanical arm about a pivot joint;

an actuator operably connected to the attachment member for powering the attachment member to tilt about the pivot joint;

a power system operably connected to the actuator;

an electronic control operatively connected to the power system, and comprising an automatic vibration mechanism for causing the attachment member to vibrate automatically in response to an activation signal; and

an operator interface in operable communication with the electronic control; and

wherein the system comprises a default state, and an activation state for causing the activation signal;

wherein the activation state comprises the attachment member undergoing a minimum load; and

~~The system of claim 10,~~ wherein the minimum load for the activation state is detected by a hydraulic pressure gauge.

13. (Currently amended) The system of claim [[10]] 1, wherein the activation state comprises the attachment member undergoing a minimum load, and wherein the activation state also comprises a position and an orientation of the attachment member that are consistent with digging.

14. (Currently amended) The system of claim [[10]] 1, wherein the activation state comprises the attachment member undergoing a minimum load, and wherein the activation state also comprises a position and an orientation of the attachment member that are consistent with packing.

15. (Currently amended) The system of claim ~~[[1]]~~ 8, wherein the operator interface comprises a push button, and the activation state comprises the push button being in a depressed position.
16. (Original) The system of claim 15, wherein the push button is disposed on a joystick.
17. (Currently amended) The system of claim ~~[[1]]~~ 8, wherein the operator interface comprises a joystick, and the activation state comprises the joystick being oriented in a predetermined orientation for a predetermined amount of time.
18. (Currently amended) The system of claim ~~[[1]]~~ 8, wherein the operator interface comprises a joystick, and the activation state comprises the joystick being jiggled.
19. (Currently amended) The system of claim 1, further comprising ~~an additional attachment~~ a backhoe mounted on the attachment member.
20. (Currently amended) The system of claim 19, ~~wherein the additional attachment comprises 1,~~ further comprising a bucket mounted on the attachment member.
21. (Currently amended) ~~The system of claim 1~~ A system comprising:
a mechanical arm;
an attachment member tiltably mounted on the mechanical arm about a pivot joint;
an actuator operably connected to the attachment member for powering the attachment member to tilt about the pivot joint;
a power system operably connected to the actuator;
an electronic control operatively connected to the power system, and comprising an automatic vibration mechanism for causing the attachment member to vibrate automatically in response to an activation signal, wherein the automatic vibration mechanism comprises an algorithm; and
an operator interface in operable communication with the electronic control; and

wherein the system comprises a default state, and an activation state for causing the activation signal.

22. (Original) The system of claim 1, wherein the actuator is hydraulically powered, and the power system provides hydraulic power.
23. (Original) The system of claim 1, wherein the actuator is electrically powered, and the power system provides electrical power.
24. (Currently amended) The system of claim [[1]]_8, wherein the actuator comprises a cylinder, and a piston slidably engaged within the cylinder.
25. (Original) The system of claim 1, further comprising a frame supported by a plurality of ground engaging wheels, wherein the mechanical arm is operably coupled to the frame.
26. (Original) The system of claim 1, further comprising a frame supported by a plurality of ground engaging tracks, wherein the mechanical arm is operably coupled to the frame.
27. (Currently amended) The system of claim [[1]]_8, wherein the operator interface comprises a console mounted on a frame to which the mechanical arm is coupled.
28. (Currently amended) The system of claim [[1]]_8, wherein the operator interface comprises a remote control console.
- 29-30. (Canceled)
31. (Currently amended) The power machine of claim [[30]]_34, wherein the predetermined segment of the range of tilt includes the extreme forward orientation.

32. (Canceled)

33. (Currently amended) The power machine of claim ~~[[32]]~~ 34, wherein the predetermined segment of the range of lift includes the maximum lift.

34. (Currently amended) ~~The power machine of claim 32,~~ A power machine, comprising:

a frame;

a plurality of ground engaging members supporting the frame;

an engine operably connected to the ground engaging members;

a mechanical arm operably coupled to the frame;

an attachment member tiltably mounted on the mechanical arm about a pivot joint;

an actuator operably connected to the attachment member for powering the attachment member to tilt about the pivot joint;

a power system operably connected to the actuator;

an electronic control operatively connected to the power system, and comprising an automatic vibration mechanism for causing the attachment plate to vibrate automatically in response to an activation signal; and

an operator interface in operable communication with the electronic control;

wherein the power machine comprises a default state, and an activation state for causing the activation signal; and

wherein the attachment member ~~[[also]]~~ has a range of lift above a projected ground surface bounded by a minimum lift and a maximum lift, and a range of tilt about the pivot joint bounded by an extreme forward orientation and an extreme rearward orientation, and wherein the activation state comprises the attachment member being both positioned within a predetermined segment of the range of lift, and oriented within a predetermined segment of the range of tilt, for a predetermined length of time.

35. (Currently amended) The power machine of claim ~~[[29]]~~ 34, wherein the operator interface comprises a push button, and the activation state comprises the push button being in a depressed position.
36. (Currently amended) The power machine of claim ~~[[29]]~~ 34, wherein the operator interface comprises a joystick, and the activation state comprises the joystick being oriented in a predetermined orientation for a predetermined amount of time.
37. (Currently amended) The power machine of claim ~~[[29]]~~ 34, wherein the operator interface comprises a joystick, and the activation state comprises the joystick being jiggled.
38. (Currently amended) The power machine of claim ~~[[29]]~~ 34, further comprising ~~an additional attachment~~ a backhoe mounted on the attachment member.
39. (Currently amended) The power machine of claim ~~[[38]]~~ 34, ~~wherein the additional attachment comprises~~ further comprising a bucket mounted on the attachment member.
40. (Currently amended) The power machine of claim ~~[[29]]~~ 34, wherein the actuator is hydraulically powered, and the power system provides hydraulic power.
41. (Currently amended) The power machine of claim ~~[[29]]~~ 34, wherein the actuator is electrically powered, and the power system provides electrical power.
42. (Currently amended) The power machine of claim ~~[[29]]~~ 34, wherein the ground engaging members comprise wheels.
43. (Currently amended) The power machine of claim ~~[[29]]~~ 34, wherein the ground engaging members comprise tracks.

44-49. (Canceled)